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# Raw sugarcane juice spreading hepatitis in Pakistan

Nida Yazdani

## ABSTRACT

Sugarcane juice is a vitalizing drink consumed in Pakistan. It is not just an energy booster; in fact it is amongst the healthiest drinks available, comprising of some very important phyto nutrients vitamins and antioxidants. One can get all these revitalizing benefits of sugar cane juice, only if it is prepared hygienically. Recently it has been reported spreading hepatitis in the country. This commentary aims at highlighting the issue and call for investigations to be carried out on the subject.

**Keywords:** Sugarcane juice, hepatitis, Pakistan

## INTRODUCTION

Hepatitis A, a communicable hepatic disease, is a major global public health problem, persistently observed under unhygienic conditions typically due to contact with contaminated foods, drinks or an infected individual. An outbreak can result from a simple case of negligence of an unclean handler and the risks can range between mild to severe and even mortality.

One such outbreak of HA investigated by United States Food and Drug Authority (US FDA), was regarding pomegranate seeds imported from Turkey which infected individuals from multiple states of United States (US).<sup>2</sup> According to Centre for Science in the Public Interest (CSPI), over 1700 individuals in North America have fallen prey to unpasteurized fruit juices and ciders.<sup>3</sup> In addition, in 2004 orange juice was found as a source of HA outbreak amongst tourists from the European countries who were returning from Egypt<sup>4</sup>, other examples of contaminated foods linked to the numerous outbreaks in past few years in Brazil, Europe, Australia and the United States (US), contain seafood products, vegetables, semi-dried tomatoes, and juices.<sup>5,6</sup>

## DISCUSSION

The case of HA outbreak through contaminated orange consumption in an endemic Egypt is arguably a public health model for Pakistan's dilemma where hepatitis is also endemic owing to water intake with faecal infectivity.<sup>7</sup> In the Country's urban region, the core water supply line gets polluted via leaking sewage pipe at close hand, whereas in rural district water gets contaminated via direct dumping of manure into various wells, streams, canals, rivers and ponds.<sup>8</sup> Thus, the Egyptian model can be implemented in context sugarcane juice related HA spread in the country.

Hepatitis A is prevailing in Pakistan, approximately 50 to 60 per cent of all

cases are linked with Hepatitis in children.<sup>9</sup> The climatic conditions, ease of availability and undoubted health benefits of the sugarcane juice makes it a popular, easily available and one of the most consumed drinks. It can be easily seen being sold in front of schools, markets, hospitals, roadsides, etc. However, the compromised health and sanitation practices render it dangerous as sugarcane juice machine is always seen unclean and filthy while the glasses used for serving are washed by dirty and often contaminated water. Moreover, the debris i.e. crushed and used canes are kept at the same place which brings insects, fruit flies, bugs, rodents, etc.

Food borne sickness influences the economy of nation owing to little or no monitoring, scrutiny and control seeing as nearly all the cases of food borne illnesses stays unreported and unrecognized. This malpractice is further encouraged by ignorant behavior of the regulatory authorities of the country and general consumers which pose increased likelihood of suffering the ultimate consequence of HA infection.<sup>10</sup>

Washing hands after using toilet, eating perfectly cooked food, making a habit of drinking boiled water and eating cleaned vegetables and fruits are some temporary effective measures against HA infection but the recommended two shots of HA vaccine provide lifelong immunity.

## CONCLUSION

Hepatitis A virus (HAV) pose a threat in Pakistan, the spread of the virus due to unhygienic selling of sugarcane juice is a serious matter that requires urgent attention from the regulatory authorities as well as from the general public. Furthermore, a full scale qualitative analysis of sugarcane juice via RIA, ELISA or RT-PCR testing will go a long way from detecting and establishing the correlation between HA virus and supplied sugarcane juices in Pakistan, to urging the sellers to take urgent and extreme measures to timely correct their adopted methods to prevent the spread of hepatitis.

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## Ethical issues

Not applicable.

## Informed consent

Not applicable.

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## Conflict of Interest

The author declares that there are no conflicts of interests.

## Data and materials availability

All data associated with this study are present in the paper.

## REFERENCES AND NOTES

1. Aparajita Chattopadhyay. Top 10 Benefits Of Sugarcane Juice For Skin, Hair And Health. *StyleCraze* 2014. <http://www.stylecraze.com/articles/benefits-of-sugarcane-juice-for-skin-hair-and-health/>
2. FDA Investigates Multistate Outbreak of Hepatitis A Illnesses Associated with Pomegranate seeds from Turkish importer. *United States Food and Drug Authority, US FDA* 2013. <http://www.fda.gov/Food/RecallsOutbreaksEmergencies/Outbreaks/ucm354698.htm#WhatIs>
3. Unpasteurized Fruit Juices and Ciders. A Potential Health Risk. *Health Link BC* 2010. <http://www.healthlinkbc.ca/healthfiles/pdf/hfile72.pdf>
4. Christina Frank, Jan Walter, Marion Muehlen, Andreas Jansen, Ulrich van Treeck, Anja M. Hauri, Iris Zoellner, Magda Rakha, Marina Hoehne, Osamah Hamouda, Eckart Schreier, and Klaus Stark. Major Outbreak of Hepatitis A

- Associated with Orange Juice among Tourists, Egypt, 2004. Emerging Infect Diseases 2007, DOI: 10.3201/eid1301.060487. [http:// wwwnc.cdc.gov/eid/article/13/1/06-0487\\_article](http://wwwnc.cdc.gov/eid/article/13/1/06-0487_article)
5. Santa Catarina registers 19 cases of Chagas disease (catch in an unseen manner) – Everyday life – Folha de S. Paulo. (Portuguese). Available from: <http://www1.folha.uol.com.br/folha/cotidiano/ult95u107034.shtml> [Last accessed 2015 Feb 2]
  6. Products with acai can transmit chagas disease. Available from: <http://noticias.r7.com/saude/produtos-com-acai-podem-transmitir-doenca-de-chagas-31012013> [Last accessed 2015 Feb 2]
  7. Prevention and control of hepatitis. *World Health Organization WHO Pakistan* 2014. <http://www.emro.who.int/pak/programmes/prevention-a-control-of-hepatitis.html>
  8. Altaf Bosan, Huma Qureshi, Khalif Mohamud Bile, Irtaza Ahmad, Rehan Hafiz. A review of hepatitis viral infections in Pakistan. *JPMA*. 2010. 60(12): 1045-1058.
  9. Incidence of Hepatitis-A high in Pakistani children. Available from: <http://www.thenews.com.pk/Todays-News-6-193578-Incidence-of-Hepatitis-A-high-in-Pakistani-children> [Last accessed 2015 Feb 2]
  10. Sugarcane juice can be harmful due to lack of cleanliness. *PaperPk News from Pakistan* <http://paperpkblog.com/news/index.php/sugarcane-juice-can-be-harmful-due-to-lack-of-cleanliness/>